a prominent place in the Association's programme, and rightly so, for they have promoted the advancement of science in many directions; but, while we recognize their value to scientific workers, we plead for something more for the great mass of people outside the section-rooms, for a statement of ideals and of service, of the strength of knowledge and of responsibility for its use. These are the subjects which will quicken the pulse of the community and convert those who hate and fear science and associate it solely with debasing aspects of modern civilization into fervent disciples of a new social faith upon which a lever made in the workshops of natural knowledge may be placed to move the world.

Richard Gregory

A NOTABLE MATHEMATICAL GIFT

As trustee of the Edward C. Hegeler Trust fund Mrs. Mary Hegeler Carus, of La Salle, Illinois, recently promised to make the Mathematical Association of America a yearly contribution of twelve hundred dollars for five years to be used for the publication of mathematical monographs under the auspices of this association. As is well known the publication of scientific literature has been much hampered in recent years by the greatly increased cost of publication. Hence this gift is especially timely and noteworthy.

The letter confirming this gift was addressed to Professor Slaught, of the University of Chicago, and includes the following significant statement:

> If at the end of five years this project shall have proved successful it is my intention to then give to the Association a permanent endowment fund, and I will so direct my legal representatives, which will yield at least twelve hundred dollars annually.

As the great success of the project seems practically assured in view of the wide and deep interest already manifested therein on the part of leading mathematicians the Mathematical Association of America seems to have good reasons for expecting a substantial permanent endowment to aid it in the futherance of its great cause of improving collegiate mathematics.

There are now three national mathematical organizations in America. The oldest of these is the American Mathematical Society, which was organized in 1888 as the New York Mathematical Society, but was reorganized about six years later under its present name. This Society devotes most of its energies to mathematical research, and, to further this cause, Professor L. L. Conant, who died in 1916, bequeathed to it ten thousand dollars, subject to Mrs. Conant's life interest, the income of which is to be offered once in five years as a prize for original work in pure mathematics.

The Mathematical Association of America was organized in 1915 with a view towards supplementing the work of the American Mathematical Society along the line of collegiate teaching. It has always collaborated with the Society holding joint meetings with it and having a large common membership. The gift announced above will make it possible to collaborate still more effectively in promoting the interests of advanced mathematics in this country. The National Council of Teachers of Mathematics, organized in 1920, is mainly devoted to the interests of the teaching of secondary mathematics and hence represents more distinctly a separate field, but it too has already begun to cooperate with the Mathematical Association of America.

The latter organization took steps several years ago towards the publication of a modern mathematical dictionary and has a standing committee on this subject. It has, however, not yet been able to push this laudable enterprise on account of lack of funds. The difficulty of such a work is increased by the fact that at present there exists no good mathematical dictionary in any language, and hence most of the material for such a work has to be collected from original sources.

G. A. Miller

University of Illinois

A NEW ALASKA BASE MAP

The U. S. Coast and Geodetic Survey of the Department of Commerce reports the completion of a new outline map of Alaska on the Lambert conformal conic projection,

scale 1/5,000,000; dimensions 17 × 26½ in., price 25 cents.

The map extends from the Arctic Ocean in the north to the State of Washington in the south, and includes all of the Aleutian Islands and a part of Eastern Siberia. It is intended merely as a base map to which may be added any kind of special information that may be desired. For this reason only national boundaries, the adjacent Canadian provinces, and the names of a few of the important towns are given. The shoreline is compiled from the most recent Coast and Geodetic Survey charts and in respect to southeast Alaska and westward to Kodiak Island, the coast-line is better represented than heretofore. The accumulation of the yearly surveys in the extensive and largely unsurveyed waters of Alaska as here embodied, presents a delineation of the coast-line in a more really true shape than heretofore and in this respect the map is more reliable than other existing maps of similar scale.

In addition to this feature, the employment of a more suitable system of map projection adds to the general accuracy. On account of the predominating east and west extent of Alaska, the Lambert conformal conic projection with two standard parallels offers advantages over other projections formerly used in mapping this region. This is the system which came to prominent notice during the World War and was employed by the allied forces in their military operations in France.

The parallels employed as standards are the latitudes 55° and 65°, and along these parallels the scale is true. Between these parallels the scale becomes too small by less than four-tenths of one per cent., which amount is insignificant. At Dixon entrance in southeast Alaska, the former general chart of Alaska on a polyconic projection was in error by as much as ten per cent. due to a system of projection which was unsuited to the shape of the area involved. In the new base map, the projection error in this locality is entirely eliminated. The maximum error of scale of the Lambert projection is only 1 3/4 per cent. This is in the latitude of Pt. Barrow in the north where the scale is too large by this amount. The same amount of error appears in latitude 48° but this is considerably south of Alaska, which is the subject of the map. The polyconic projection had the effect of exaggerating areas in the most important part of Alaska whereas in the Lambert projection the maximum scale error is placed in the least important part of Alaska, and in amount is only one sixth as large as in the polyconic projection.

For the measurement of distances and areas within the extent of the map, an accuracy is thus obtained that is well within the limits of draftsmanship, paper distortion, and our knowledge of this region as a whole.

The selection of a suitable projection with a conformal grid system of one degree units, makes the new outline map a convenient base for the addition of special and useful information. The inclusion of the northwest part of the state of Washington serves as a connecting link with a similar Lambert conformal base map of the United States which has already been published on the same scale.

SCIENTIFIC EVENTS

INVESTIGATIONS OF THE U. S. BUREAU OF MINES ON OZONE AND VENTILATION

THE Pittsburgh Experiment Station of the United States Bureau of Mines, according to a bulletin of the bureau, is working in cooperation with the Research Bureau of the American Society of Heating and Ventilating Engineers on a number of problems which affect each individual in his home life, in his place of business, and especially in those places where many people congregate, as in churches, school-rooms and theaters. It is important to ventilate such places with sufficient fresh air to make every one comfortable enough to be able to work at high efficiency. The circulation of excessive quantities of fresh air imposes a considerable cost on the heating system, therefore an efficiently designed heating and ventilating system introduces the least amount of cooled air con-